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## **MISUNDERSTANDING CREATIVITY: USER CREATED CONTENT IN VIRTUAL WORLDS AND ITS CONSTRAINTS BY CODE AND LAW**

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## MISUNDERSTANDING CREATIVITY: USER CREATED CONTENT IN VIRTUAL WORLDS AND ITS CONSTRAINTS BY CODE AND LAW

Mira Burri\*

*Virtual worlds have moved from being a geek topic to one of mainstream academic interest. This transition is contingent not only on the augmented economic, societal and cultural value of these virtual realities and their effect on real life but also on their convenience as fields for experimentation, for testing models and paradigms. User creation is however not something that has been transplanted from the real to the virtual world but a phenomenon and a dynamic process that happens from within and is defined through complex relationships between commercial and non-commercial, commodified and not commodified, individual and of the community, amateur and professional, art and not art. Accounting for this complex environment, the present article explores user created content in virtual worlds, its dimensions and value and above all, its constraints by code and law. It puts forward suggestions for better understanding and harnessing this creativity.*

### I. INTRODUCTION

Creativity seems like a magic formula that holds the promise of sustaining innovation and furthering development in all sorts of ways even if it does not always and automatically translate into tangible innovation.<sup>1</sup> The ingredients that make up the magic potion however are multiple, often unidentified (and unidentifiable), unpredicted (and unpredictable), and changing. Despite this “ineffable nature of creativity”,<sup>2</sup> virtual worlds as new spaces of creation, interaction, work and play have lately, almost unanimously, been claimed to be environments that unleash creative processes and indeed give birth to novel types of creative engagement and production.<sup>3</sup> At the same time, as the economic, societal and cultural value of virtual worlds grows and as their effect on real life intensifies, states have increasingly begun to intervene in these digital environments to secure some public interests through either specifically designed or generic regulatory channels, through initiatives that either encourage industry self-regulation or are framed in co-regulatory models. It should be noted that a sizeable part of these regulatory efforts has been seen as (more or less direct) vectors of fostering creativity in digital game environments. Especially in Europe, where cultural diversity has long been an objective writ large on the

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<sup>1</sup> Shahid Yusuf, *From Creativity to Innovation*, 4262 WORLD BANK POLICY RESEARCH WORKING PAPER (2007).

<sup>2</sup> Julie E. Cohen, *Creativity and Culture in Copyright Theory*, 40 U.C. DAVIS L. REV. 1151, 1178 (2007).

<sup>3</sup> See e.g. Cory Ondrejka, *Changing Realities: User Creation, Communication, and Innovation in Digital Worlds*, ANNENBERG SCHOOL OF COMMUNICATION WORKING PAPER 1–23 (2005).

banners of media regulators,<sup>4</sup> there is a growing number of efforts that attempt to mobilise the creative energy of virtual worlds in the pursuit of cultural policy objectives.<sup>5</sup>

Regulators, however, have little experience with digital game spaces and often little understanding of their workings and the inherently complex relationships between commercial and non-commercial, commodified and not commodified, individual and of the community, amateur and professional, art and not art. They often misunderstand the multifaceted and decentred creative processes unfolding inside and outside game spaces and simply transplant regulatory tools designed in the offline/analogue age.

Against this backdrop, it is the purpose of the present article to look at one particular expression of the creativity unfolding within virtual worlds – that of user created content (UCC). The article seeks to explore the nature and the dimensions of UCC in virtual worlds and its relationship to culture and cultural diversity. Taking into account the often fervently celebrated grassroots cultural revolution and in an attempt not to yield to the hype, the concrete questions asked are: what is the value of UCC within game environments?; and, subsequently, whether UCC in its dynamic sense of a creative and communicative process can be seen as a channel for the promotion of cultural diversity, and if so, what states should (and could) do about this.

## II. A NOTE ON DEFINITIONS

When talking about UCC and cultural diversity in virtual worlds, it is indispensable that some definitional remarks and in a number of caveats are made. None of the three concepts, i.e. UCC, cultural diversity or virtual worlds, has clear-cut definitional contours. The last is perhaps the easiest to define since it is devoid of politically charged meanings and less often instrumentalised in political discussions. For the purpose of this article, virtual worlds are construed as encompassing both virtual worlds *sensu stricto* (such as most popularly, *Second Life*<sup>6</sup>) and digital games, of which the most relevant in the present context are those that can be played online (from a game console or a personal computer) enabling the creation of a persistent game environment (such as within massively multiplayer online games [MMOGs] like *World of Warcraft*<sup>7</sup>). We refer alternatively and collectively to these spaces as “digital game environments”.

UCC will be used here in a sense narrower than the understanding of UCC generally shared in mass media (also referred to as user-generated or user-contributed content), which captures all forms of expressions made by users, ranging from contributions to chats, email or instant message exchanges, shared links, texts, videos and photographs to created from scratch authored stories and films. Diverging from this “catch-all” term and in line with the criteria outlined by

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<sup>4</sup> RACHAEL CRAUFURD SMITH (ED), *CULTURE AND EUROPEAN UNION LAW* (2004).

<sup>5</sup> Cultural diversity has now also been emancipated to the international level in a binding legal treaty adopted under the auspices of the United Nations Educational, Scientific and Cultural Organization (UNESCO). The UNESCO Convention on the Protection and Promotion of the Diversity of Cultural Expressions was adopted by the 33<sup>rd</sup> Session of the General Conference on 20 October 2005 in Paris and entered into force on 18 March 2007. As of 15 March 2011, 116 states have ratified the UNESCO Convention (<http://portal.unesco.org/la/convention.asp?KO=31038&language=E>). We refer henceforth to this document as to the *UNESCO Convention*.

<sup>6</sup> <http://secondlife.com/>. Other examples are *There.com* (<http://www.there.com/>), *The Sims Online* (<http://thesims.ea.com/>) and *Activeworlds* (<http://www.activeworlds.com/>).

<sup>7</sup> <http://www.worldofwarcraft.com/>.

the OECD Working Party on the Information Economy,<sup>8</sup> we consider only those types of UCC, where the user has added or created something new as an expression of her or his own creativity.<sup>9</sup> This act and the artefact(s) produced would then qualify as cultural expressions in the sense of the UNESCO Convention identifying as cultural “those expressions that result from the creativity of individuals, groups and societies, and that have cultural content”.<sup>10</sup>

Within the game environment, a distinction will also be made between creations and chattels, where the latter are merely objects that can be acquired by players through game-play but are put in place by the game designers.<sup>11</sup>

This narrowing down of the scope of UCC enables us to address in a more focused manner the questions defined above. We also reduce the complexity of the notion of cultural diversity since we intend to look only into the UCC within the environment of digital games and its possible contribution to diverse cultural expressions, and not at the diversity of games as products of the games industry available on the market. This approach may admittedly be contested since when assessing cultural diversity it is customary to look at the markets for cultural content trying to evaluate according to a predefined set of criteria whether the market has delivered the aspired level of diversity (or has failed to do so).<sup>12</sup>

The reasons for choosing this approach are several but all stem from the specificity of games. The first is that while it is certain that digital games as a whole constitute a cultural expression,<sup>13</sup> it is also true that within games there are other cultural expressions that are distinct

<sup>8</sup> OECD defines UCC as (i) content made publicly available over the Internet; (ii) which reflects a “certain amount of creative effort”; and (iii) which is “created outside of professional routines and practices” (OECD, *Participative Web: User-created Content*, DSTI/ICCP/IE(2006)7/FINAL (2007) 4, 8–9). We downplay here the last criterion not only because the line between fun and work becomes blurred but also because professional artists, private companies and public institutions are increasingly becoming major contributors of content (see e.g. Nick Yee, *The Labor of Fun: How Video Games Blur the Boundaries of Work and Play*, 1 GAMES & CULTURE 68 (2006)).

<sup>9</sup> In this sense, bilateral communication through email or instant messages, plain linking or copy-and-paste of existing content would not qualify as UCC (although one could argue that a dossier of links or copied content is an expression of a person’s unique tastes and experiences). See OECD, *supra* note 8, 8.

<sup>10</sup> Article 4(3) UNESCO Convention. As Article 4(2) clarifies, “cultural content” is to be understood as “the symbolic meaning, artistic dimension and cultural values that originate from or express cultural identities”. On the concept of culture underlying the UNESCO Convention, see CHRISTOPH BEAT GRABER, *Substantive Rights and Obligations under the UNESCO Convention on Cultural Diversity*, in PROTECTION OF CULTURAL DIVERSITY FROM AN INTERNATIONAL AND EUROPEAN PERSPECTIVE 143–145 (Hildegard Schneider & Peter van den Bossche eds., 2008).

<sup>11</sup> Herman et al. note however that the legal status of both categories in terms of real-life intellectual property may be the same. See Andrew Herman, Rosemary J. Coombe & Lewis Kaye, *Your Second Life? Goodwill and the Performativity of Intellectual Property in Online Digital Gaming*, 20 CULTURAL STUD. 205 (2006). On IP, see *infra* section 3.

<sup>12</sup> In this context, it should be noted however that there exist no indicators for measuring cultural diversity. There is also no or very little data available on culture, and most of the existing statistics cannot be compared internationally. See the initiatives of the UNESCO Institute for Statistics in this regard, [http://www.uis.unesco.org/ev\\_en.php?ID=7061\\_201&ID2=DO\\_TOPIC](http://www.uis.unesco.org/ev_en.php?ID=7061_201&ID2=DO_TOPIC).

<sup>13</sup> In the US, courts have recognised much simpler games, such as first person shooter games, as artistic expressions protected under the First Amendment. *Argumentum a fortiori*, MMOGs will also qualify as such. See Jack M. Balkin, *Law and Liberty in Virtual Worlds*, 49 N.Y.L. SCH. L. REV. 63, 69 (2004), referring among other cases to *Interactive Digital Software Ass’n v. St. Louis County*, 329 F.3d 954 (8<sup>th</sup> Cir. 2003); *American Amusement Mach. Ass’n v. Kendrick*, 244 F.3d 572 (7<sup>th</sup> Cir. 2001); *Sanders v. Acclaim Entm’t, Inc.*, 188 F. Supp. 2d 1264 (D. Colo. 2002). In Europe, the practice is less straightforward although moving in the same direction. See European Commission, Decision of 11 December 2007 on State Aid C 47/06, *Tax credit introduced by France for the creation of video games*, OJ L 118/16 (2008).

from the entire packaged product and only *exploit the game environment* to situate the creations. Another category of cultural content (although a miscellaneous one, as we shall see below) is created using the *game as a tool*, as a technical facilitator “to create entirely independent expressive projects”,<sup>14</sup> and as such this content does not “belong” to the game *per se*. It is precisely within these two categories that UCC normally fits. However, this type of creativity and its outputs will not be captured in a standard market analysis or they will qualify merely as an assessment criterion without revealing the complexity of the UCC phenomenon and potentially missing out an appropriate assessment of its effects. From a purely market analysis perspective, it should also be noted that defining the relevant market in the digital games domain may not be easy. The sophisticated tools of competition law and practice, notably the SSNIP test (i.e. Small but Significant Non-transitory Increase in Price, also known as the “hypothetical monopolist” test), examine the interchangeability of products whenever a certain increase in price occurs in order to identify whether these products belong to the same market or not.<sup>15</sup> This logical construct may be difficult to apply to games since it has been sociologically and psychologically proven that games, in particular massively multiplayer online role playing games (MMORPGs) because of their nature as social spaces, are not substitutable and players tend to be “citizens” of one virtual world only.<sup>16</sup> In this sense, one can even suggest that some games can be identified as markets in themselves – a hypothesis that finds some confirmation in the antitrust practice regarding the air transport and telecommunications sectors, where unique routes and phone connections (e.g. London – New York), were found to constitute one market.<sup>17</sup>

### III. UCC, ITS VALUE AND ITS LIMITATIONS WITHIN VIRTUAL WORLDS

Following these definitional clarifications, in the next section, we seek to define the value of UCC and we do this in a negative way, i.e. by exposing its limitations rather than its virtues. This allows us to draw a clearer distinction between the general discussion of UCC and the specific one on UCC in virtual worlds, which, we hope, will also methodologically facilitate sharper conclusions in an otherwise still relatively messy discussion environment.

We focus on three limitations and formulate them as distinct categories, although in reality they may often be intertwined. The constraints of UCC we identify are: (i) the game environment

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<sup>14</sup> John Baldrica, *Mod as Heck: Frameworks for Examining Ownership Rights in User-Contributed Content to Videogames, and a More Principled Evaluation of Expressive Appropriation in User-Modified Videogame Projects*, 8 MINN. J.L. SCI. & TECH. 681, 687 (2007).

<sup>15</sup> According to the established practice, both EC and US, the relevant product/service market comprises all those products or services that are sufficiently *interchangeable* or *substitutable* to the consumer, not only in terms of their objective characteristics, by virtue of which they are particularly suitable for satisfying the constant needs of consumers, their prices or their intended use, but also in terms of the conditions of competition and/or the structure of supply and demand on the market in question. The SSNIP test proves the interchangeability by introducing a hypothetical small (in the range of 5–10%) permanent increase in the price of product A to see whether this price increase would make customers switch to product B as a readily available alternative, and whether they would do so to an extent sufficient to make the price increase unprofitable. On the SSNIP test, *see* European Commission, Notice on the Definition of the Relevant Market for the Purposes of Community Competition Law, OJ C 372/5 (1997), paras 13–18.

<sup>16</sup> In addition, most games are not one-off consumption products, but rather dynamic networks with strong network effects that need to be examined over a period of time.

<sup>17</sup> *See* Pierre Larouche, *Relevant Market Definition in Network Industries: Air Transport and Telecommunications*, 1 J. OF NETWORK INDUSTRIES 407 (2001); Pierre Larouche, *A Closer Look at Some Assumptions Underlying EC Regulation of Electronic Communications*, 3 J. OF NETWORK INDUSTRIES 129 (2002).

itself; (ii) the commercial and private lawmaking nature of games; and (iii) the way intellectual property rights are regulated and impact on the creations and their authors within and outside the game space.

### A. Limitations of UCC

#### 1. The Game Environment Itself

It is critical at the onset to understand that the game environment builds a certain context to the creative process. It is rarely that the game platform serves as a mere “gallery” where artistic expressions are displayed<sup>18</sup> and even then the positioning of these bears some symbolic meaning. The context is given by the conditions of action, organisation, communication and social interaction, which are specific to each game and the actual processes that occur under the given conditions. Regardless of whether we use Huizinga’s classical concept of the “magic circle”<sup>19</sup> or the more advanced notion of “meaningful play”, coined by Salen and Zimmerman,<sup>20</sup> it is clear that UCC is identified through the game environment and situated in it.<sup>21</sup> In particular in the context of virtual worlds, whose strongest appeal comes from the social in-game interactions between players and community of players,<sup>22</sup> and where group play and social organisation can be fairly complex,<sup>23</sup> the game environment could be defining for creativity.

In more practical terms, one needs to acknowledge that digital games vary substantially in the degree to which they allow and facilitate user creativity and the production and distribution of content. As Lastowka notes, the term “user” adds a technological dimension to UCC and implies a certain dichotomy between those who make things and those who use them, as well as presupposing the existence of at least two parties, makers and users, and at least two things, tools and content.<sup>24</sup> In this sense, one can explain both the constraints on creativity and the incredible variation of content through the plain availability of tools and their functionality (or the lack thereof).

Following this observation, the commonly shared account that digital games are “a form of entertainment that uses a platform for active coproduction of a story line to displace what was once passive reception of a finished, commercially and professionally manufactured good”<sup>25</sup> is

<sup>18</sup> Which distinguishes games from other UCC platforms, such as *Flickr* (for pictures) or *YouTube* (for videos).

<sup>19</sup> Put simply, the magic circle of a game is a delineation in time and space of the game’s existence. See JOHAN HUIZINGA, *HOMO LUDENS: A STUDY OF THE PLAY ELEMENT IN CULTURE* (2d ed. 1985). See also JAN H.G. KLABBERS, *THE MAGIC CIRCLE: PRINCIPLES OF GAMING AND SITUATION* (2006).

<sup>20</sup> Salen and Zimmerman build on the notion of the “magic circle” and understand the “meaningful play” as all actions and outcomes within a magic circle that add to the emotional and psychological experience of playing the game. See KATIE SALEN & ERIC ZIMMERMANN, *RULES OF PLAY: GAME DESIGN FUNDAMENTALS* (2004).

<sup>21</sup> On the concept of “situated play”, see Digital Games Research Association (DiGRA), *Situated Play, Proceedings of DiGRA 2007 Conference*, available at: <http://www.digra.org/dl/>.

<sup>22</sup> T.L. TAYLOR, *PLAY BETWEEN WORLDS: EXPLORING ONLINE GAME CULTURE* (2006).

<sup>23</sup> See Dmitri Williams, Nicolas Ducheneaut, Li Xiong Yuanyuan Zhang, Nick Yee & Eric Nickell, *From Tree House to Barracks: The Social Life of Guilds in World of Warcraft*, 1 *GAMES & CULTURE* 338 (2006). On video games as contexts for the circulation, interpretation and deployment of meaning, see IAN BOGOST, *The Rhetoric of Video Games*, in *THE ECOLOGY OF GAMES: CONNECTING YOUTH, GAMES, AND LEARNING* 117 (Katie Salen ed., 2008).

<sup>24</sup> Greg Lastowka, *User-Generated Content and Virtual Worlds*, 10 *VAND. J. ENT. & TECH. L.* 893, 897–98 (2008).

<sup>25</sup> YOCHAI BENKLER, *THE WEALTH OF NETWORKS: HOW SOCIAL PRODUCTION TRANSFORMS MARKETS AND FREEDOM* (2006), 74.

only partly true. In fact, in some games, it is simply *impossible* to create content and while the game certainly evolves through game-play, the player is still very much only a consumer of the content created by the game designers. Within this class of games, we do not include only those that are too technically and “ludologically”<sup>26</sup> constrained, such as basic play-spaces like *Pong* or *Pac-Man*<sup>27</sup> but also more complex game environments, such as virtual worlds, where players’ agency to make and do things is limited by design. In other games, content creation may very well be possible but is not allowed. In yet a third category of games, UCC is not only allowed but builds the core of the game – its very mission and function is to facilitate the creation of content within the game environment, as well as to enhance the possibilities of sharing (including trading) the created content.<sup>28</sup> The infamous example of this in fact rather small category of games, is Linden Lab’s *Second Life*, which is a “world created by its Residents”,<sup>29</sup> where players can build basically anything from scratch through the process of atomistic construction.<sup>30</sup>

Most virtual worlds currently on the market fall under the second category, where players have some, but constrained, agency to create, with specific features applying on a case-by-case basis, and where the creative (and financial) initial and ongoing investment by the game developers is enormous. In *World of Warcraft (WoW)*,<sup>31</sup> for instance, which is presently the most popular MMOG and boasts over 11 million subscribers worldwide,<sup>32</sup> the majority of the content is professionally produced by the *WoW* developers, and not by the players. Players may create on top of this content or in parallel with it, but their ability to generate original works within the game is fairly limited (even in terms of modifications to avatars)<sup>33</sup> and consists of some fan artwork and machinima. Furthermore and as we show below in more detail, the production of these works is, legally speaking, only partially permitted.

The above somewhat rough typology<sup>34</sup> already signals that it is difficult (and most likely erroneous) to make generalisations about UCC in digital games because these can be fundamentally different, both in terms of meanings built into the game environment and

<sup>26</sup> “Ludology” is the newly coined term for game studies, which are interdisciplinary and analyse games from the perspective of social sciences and humanities, as well as design and engineering.

<sup>27</sup> Although both *Pong* and *Pac-Man* have been used as a basis for further cultural creation.

<sup>28</sup> See Cory Ondrejka, *Escaping the Gilded Cage: Building the Metaverse*, 49 N.Y.U. L. REV. 81 (2006).

<sup>29</sup> See <http://secondlife.com/whatis/>.

<sup>30</sup> See Cory Ondrejka, *Education Unleashed: Participatory Culture, Education, and Innovation in Second Life*, in Salen, *supra* note 23, 236–237. Players can also import things made using external tools, such as Photoshop. For an excellent brief explanation of how creation and modification in *Second Life* works, see Todd David Marcus, *Fostering Creativity in Virtual Worlds: Easing the Restrictiveness of Copyright for User-Created Content*, 52 N.Y.U. L. REV. 67, 73–75 (2007/2008). For a more technical introduction, see AIMEE WEBER, KIMBERLEY RUFER-BACH & RICHARD PLATEL, *CREATING YOUR WORLD: THE OFFICIAL GUIDE TO ADVANCED CONTENT CREATION FOR SECOND LIFE* (2007).

<sup>31</sup> For a comprehensive discussion of the in-game dynamics of *WoW*, see HILDE G. CORNELIUSSEN & JILL WALKER RETTBERG, *DIGITAL CULTURE, PLAY AND IDENTITY: A WORLD OF WARCRAFT® READER* (2008).

<sup>32</sup> Blizzard Entertainment, “World of Warcraft® Subscriber Base Reaches 11.5 Million Worldwide”, Blizzard Entertainment Press Release, 23 December 2008, available at <http://www.blizzard.com/us/press/080122.html>.

<sup>33</sup> Lastowka, *supra* note 24, 909; Viktor Mayer-Schönberger & John Crowley, *Napster’s Second Life?: The Regulatory Challenges of Virtual Worlds*, 100 NW. U. L. REV. 1775 (2006).

<sup>34</sup> There are games that would not neatly fit into either of the categories defined. The 2008 released game *Spore*, for instance, which came out of the work of the author of *the Sims*, Will Wright, enables players to control the evolution of a species from its beginnings as a unicellular organism, through development as an intelligent and social creature, to interstellar exploration. It is a “massively single-player online game”, which develops procedurally. See <http://www.spore.com>.

providing context to the creative and communicative processes, as well as in terms of the toolbox available for their expression.

Concluding on this first type of limitation, it should be noted that, whereas UCC may have positive effects on the game environment making it more vibrant, interactive, evolving and at times unpredictable, the more UCC is not always the better. “The freedom of participants to create content as they wish can be difficult to harmonize with the business of building compelling virtual environments. While user-generated content [...] may be the key ingredient that makes virtual worlds appealing, it is an ingredient that can overwhelm virtual worlds as well”.<sup>35</sup> Even Jack Balkin, who has formulated and advocated the freedom to play, speaks of it in an immediate relationship with the freedom to design (belonging to the game developers) and the freedom to design together (belonging to the game developers and the players).<sup>36</sup> This interplay between designers and users and the substitution of the traditional roles of who produces and packages the content and who simply consumes it,<sup>37</sup> is particularly visible, as we reveal in the next section, in the UCC context, where game developers have increasingly sought to install tools facilitating UCC and have thus fostered it.<sup>38</sup>

## 2. *The Commercial and Private Lawmaking Nature of Games*

Digital games are commercial products and digital game providers are commercial enterprises. As such and quite naturally, they pursue profit maximisation and risk minimisation that translate in the specific domain of virtual worlds (which are products far more complex than the piece of software installed on some type of hardware) into two prime objectives: (i) attracting people to join the virtual world they offer, and (ii) retaining players within the network over time.<sup>39</sup> Practice shows that the latter goal has been less of a worry to virtual world providers because of the high costs involved for players willing to switch from one game environment to another,<sup>40</sup> and the lack of practical interoperability between virtual worlds.<sup>41</sup> For the successful achievement of the first goal, which is also a natural prerequisite for the second, Mayer-Schönberger and Crowley identify three categories of strategies that virtual world providers customarily follow. These strategies have to do with: (i) the content offered; (ii) the price charged; and (iii) the regulatory framework of the virtual world.<sup>42</sup>

<sup>35</sup> Lastowka, *supra* note 24, 894.

<sup>36</sup> Balkin, *supra* note 13, 64.

<sup>37</sup> On the complex representation of users in the design of digital games, APHRA KERR, *Representing Users in the Design of Digital Games*, in PROCEEDINGS OF COMPUTER GAMES AND DIGITAL CULTURES CONFERENCE (Frans Mäyrä ed., 2002).

<sup>38</sup> In a later version of *Halo* (*Halo 3*), for instance, which is a first person shooter game, extra tools were included to make the production of machinima videos easier. See Henry Lowood, *High-Performance Play: The Making of Machinima*, 7 J. OF MEDIA PRACTICE 25 (2006).

<sup>39</sup> Mayer-Schönberger & Crowley, *supra* note 33, 1802–1803.

<sup>40</sup> EDWARD CASTRONOVA, *SYNTHETIC WORLDS: THE BUSINESS AND CULTURE OF ONLINE GAMES* 139 (2005).

<sup>41</sup> At least until now. For the first attempts of “teleporting”, see Linden Lab, “Linden Lab and IBM Achieve Major Virtual World Interoperability Milestone: Open Grid Protocol Enables Avatars to Teleport between Second Life and OpenSim Virtual Worlds, Linden Lab Press Release, 8 July 2008, available at: [http://lindenlab.com/pressroom/releases/07\\_08\\_08](http://lindenlab.com/pressroom/releases/07_08_08).

<sup>42</sup> Mayer-Schönberger & Crowley, *supra* note 33, 1802–1803.



The first category is essentially the most complex.<sup>43</sup> Quite insightfully, Mayer-Schönberger and Crowley pinpoint as critical for the success of virtual worlds the solutions they offer to four fundamental problems: (i) persistence of the virtual world and the activities therein; (ii) teleology of the game, which is either the pursuit of some concrete tasks or a user-driven construction of a society resembling the real or a fantasy world; (iii) malleability in the sense of the ability granted to players to modify the world; and (iv) verisimilitude, which means the creation of an immersive experience that is sufficiently “real”.<sup>44</sup>

UCC is undoubtedly an essential element of this matrix because it may increase the value of the virtual world and may also strengthen its sustainability as a persistent creative environment.<sup>45</sup> UCC is not in this sense (and less and less so) a mere add-on that has spontaneously and accidentally emerged within virtual worlds, but an asset, which game providers may (and try to) exploit for the achievement of the goals noted above.<sup>46</sup> Bearing in mind the defining commercial nature of games, it is evident that, “[t]he future of user-generated content and virtual worlds hinges on business models, investments, and consumer behaviors...”<sup>47</sup> (such as the extent to which providers can monetise on UCC; whether and how consumers react to more UCC tools, more UCC, and more appropriated UCC).

Before we attempt to evaluate the positive and negative effects of this relationship, we need to add to the discussion another variable that has an impact on virtual worlds, their functioning and appeal, and on UCC. It stems from the commercial nature of game providers, but relates in particular to their lawmaking authority as architects and administrators of the rules governing the game and those governing the players. These rules are modelled through the code that underlies the virtual world and makes it work<sup>48</sup> and through the private law contracts that users sign before and when playing the game, which are provided by the game-specific end-user licence agreements (EULA) and the terms of service (ToS).<sup>49</sup> Herman, Coombe and Kaye call these “constitutional conditions of governance”,<sup>50</sup> although in fact they bear little resemblance to a Constitution but are more akin to a private contract “with no guarantee of democratic participation or assurance of transparency. The providers may change the underlying software

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<sup>43</sup> Also because it influences the other two: with regard to price, because of the size of the investment in the production and the support of the game; with regard to the regulatory framework within virtual worlds, because this set of rules is intertwined in and dependent on the content of the game.

<sup>44</sup> Mayer-Schönberger & Crowley, *supra* note 33, 1784–1785.

<sup>45</sup> Which also feeds into increasing the value of the network and its positive externalities, i.e. the second distinct goal that virtual providers pursue. On positive network effects, see CARL SHAPIRO & HAL R. VARIAN, *INFORMATION RULES* 173–225 (1999).

<sup>46</sup> For some opinions of the industry, see Dave Kosak, *The Future of Massively Multiplayer Gaming: A Visionary Panel*, GAMESPY, November 2003; Christina J. Hayes, *Changing the Rules of the Game: How Video Game Publishers Are Embracing User-Generated Derivative Works*, 21 HARV. J.L. & TECH. 567 (2008).

<sup>47</sup> Lastowka, *supra* note 24, 908.

<sup>48</sup> The natural reference on code as rulemaking is Lawrence Lessig. See LAWRENCE LESSIG, *CODE AND OTHER LAWS OF CYBERSPACE* (1999) and the updated version, LAWRENCE LESSIG, *CODE: VERSION 2.0* (2006). See also Nicola Lucchi, *The Supremacy of Techno-Governance. Privatization of Digital Content and Consumer Protection in the Globalized Information Society*, 15 INT’L J. OF L. & INF. TECH. 192 (2007).

<sup>49</sup> Mayer-Schönberger & Crowley, *supra* note 33, 1792. For an extensive analysis of the EULAs, see Andrew Jankowich, *EULAw: The Complex Web of Corporate Rule-Making in Virtual Worlds*, 8 TUL. J. TECH. & INTELL. PROP. 1 (2006). See also Castronova, who has argued in favour of restrictive EULAs in order to keep the game space “pure” and unencumbered by real-life property laws. See Edward Castronova, *The Right to Play*, 49 N.Y.U. L. REV. 185 (2004).

<sup>50</sup> Herman et al., *supra* note 11, *passim*.

code – and by extension the rules that constrain certain behaviors – at any time”.<sup>51</sup> The ultimate form of punishment, because of the related high social and financial costs, i.e. the expulsion from the virtual world, also remains at all times within the authority of the game provider.<sup>52</sup>

While the above-sketched traits of digital game environments may instinctively lead one to paint a bleak picture of the future of UCC and may be perceived as an indication of increasing commercialisation and appropriation of creativity, we should not be hasty in our conclusions. Markets often do deliver. From the viewpoint of conventional market analysis and looking at the diversity of *types* of games on the market, there is a possibility that as niche products become economically viable in the digital ecosystem because of the radically falling storage, distribution and search costs (the so-called “long tail” effect<sup>53</sup>), a greater variety of games accommodating UCC (some better than others) will emerge and be able to sustain an overall agreeable environment for creativity.<sup>54</sup> Nonetheless, considering the huge (and soaring) costs of production of digital games and the high risk involved, experimentation with UCC is to be expected from smaller producers and/or at the margins of big entertainment companies’ catalogues.

Speaking of in-game design, which is the strict focus of this article, it may very well be the case that it is precisely the commercial nature of digital games that creates a stronger drive for promoting UCC, whose value has substantially grown and is still on the rise, both from the perspective of the players and that of the industry. UCC has itself become a type of play, expanding the affordances of digital games beyond their original design. “This activity sometimes replaces designed game play with the hobby of game component creation or participation in user communities. This unusual appropriation of digital games as creative outlets, specially as millions of users become part of it, has implication for education and for the

<sup>51</sup> Mayer-Schönberger & Crowley, *supra* note 33, 1794, referring to *Second Life*’s ToS and Sony Entertainment Online ToS.

<sup>52</sup> “Expulsion as an enforcement mechanism is effective because participants in virtual worlds incur significant social and financial costs when they are forced to leave. They not only have to leave behind a network of friends and their accumulation of social and other capital, but also are forced to abandon the persistent narrative that they have constructed around their avatar”. See Mayer-Schönberger & Crowley, *supra* note 33, 1793. Grimmelmann argues on the other hand that players as a single collective group always have the exit option and in this way possess certain power over the game designers. See James Grimmelmann, *Virtual Worlds as Comparative Law*, 49 N.Y.U. L. REV. 147 (2004).

<sup>53</sup> The “long tail” effect is a term coined by Chris Anderson, chief editor of the *Wired* (Chris Anderson, *The Long Tail*, 12:10 WIRED, Oct. 2004 and CHRIS ANDERSON, *THE LONG TAIL: WHY THE FUTURE OF BUSINESS IS SELLING LESS OF MORE* (2006). The name has to do with the image of a demand curve that gets longer and longer and covers more and more niche “non-hit” products. Anderson’s theory builds on substantiated previous and parallel economic research. See in particular Erik Brynjolfsson, Yu Hu & Michael D. Smith, *Consumer Surplus in the Digital Economy: Estimating the Value of Increased Product Variety at Online Booksellers*, 4305 MIT SLOAN WORKING PAPER (2004); Erik Brynjolfsson, Yu Hu & Michael D. Smith, *From Niches to Riches: The Anatomy of the Long Tail*, 47 SLOAN MGMT. REV. 67 (2006); Erik Brynjolfsson, Yu Hu & Duncan Simester, *Goodbye Pareto Principle, Hello Long Tail: the Effect of Search Costs on the Concentration of Product Sales*, MIT CENTER FOR DIGITAL BUSINESS WORKING PAPER (2007). For an overview of the “long tail” theory and some of its implications for regulation of media markets and for cultural diversity, see Mira Burri-Nenova, *Trade versus Culture in the Digital Environment: An Old Conflict in Need of a New Definition*, 12 J. OF INT’L ECON. L. 17–62 (2009).

<sup>54</sup> Especially if there is a move towards more digital download platforms and networks that support the self-publishing business model and that are not just a replication of the high street retail model. This will allow independent publishers to compete on a more equal footing with the larger entertainment media companies. See Screen Digest, *Interactive Content and Convergence: Implications for the Information Society*, A Study for the European Commission (2006), section 2.4.5.3.

videogame industry”.<sup>55</sup> Following this line of reasoning and given the best of scenarios, game providers viewing UCC as a key asset of the game, would do their best to appropriately reflect the interests of the creators, both technologically and legally. The forces of supply and demand may thus meet at a point of equilibrium fostering creative activities within the game and “on top” of the game.<sup>56</sup> The private lawmaking inherent to digital games is then sufficiently flexible to allow experimenting and identifying the appropriately matching architecture of code and contract.

Yet, as already noted this is the best-case scenario. The others locating UCC in this purely commercial matrix are grimmer. It is conceivable that *WoW*-type spaces will completely appropriate any type of creative activity and mould it in a way that diminishes its value as an expression of individuals or groups of individuals. On the other hand, open spaces, such *Second Life*, because of their underlying canon of becoming a second “real” world, may grow to be the hub of commercial start-ups, virtually present companies purely driven by economic considerations and dubious dealers. It is also not certain how stable such UCC-centred games are. *Second Life* has not attracted a great number of imitators and those who have followed have not had much success.<sup>57</sup> It is not yet clear whether *Second Life* itself is making profits<sup>58</sup> and this is, to some extent, a consequence of the chosen business model, which although beneficial to UCC faces more practical challenges (including more real world litigation<sup>59</sup>) than the *WoW*-alikes, constructed as “walled gardens” with the content locked within them.<sup>60</sup> There is so far no evidence to support the suggestion of Mayer-Schönberger and Crowley that users will switch to *Second Life*-type virtual worlds because of their attractiveness as places of freedom, thus lowering the revenue stream for traditional game providers for creating new content and thus putting them under pressure.<sup>61</sup> It is also unclear to what extent exclusively UCC-centred games, whose content is almost entirely created by the users,<sup>62</sup> are sustainable in a ludological sense: “Virtual worlds that abandon game structures can actually be problematic, since the new user may not understand for what the technology should be used. Ultimately, if a virtual world is not a game, it is a tool, and the user must endeavour to find a purpose for that tool. In virtual worlds that lack games objectives, it seems that many participants ultimately gravitate toward playing with each other. They converse, flirt, debate, scam virtual currency from each other, gamble, and

<sup>55</sup> See description of Panel, *User-Created Content and Program-Modification in Video Games and Virtual Worlds*, presented at the Conference “Meaningful Play 2008”, Michigan State University, East Lansing, MI, Oct. 9–11, 2008, available at: <http://meaningfulplay.msu.edu/program.php?detailed=1>.

<sup>56</sup> Exemplifying this is the fact that in 2003, eight of the top ten selling PC video games included bundled editors allowing users to manipulate and create in-game characters and generate new game worlds. See Andrew V. Moshirnia & Anthony C. Walker, *Reciprocal Innovation in Modding Communities as a Means of Increasing Cultural Diversity and Historical Accuracy in Video Games*, in *SITUATED PLAY: PROCEEDINGS OF THE DIGRA 2007 CONFERENCE*, 362–368 (2007) referring to Dave Kosak, *The Future of Massively Multiplayer Gaming: A Visionary Panel*, GAMESPY, Nov. 2003, summarising opinions of key players of the game industry.

<sup>57</sup> See e.g. on the *Lively* project by Google, *If You Build It...*, THE ECONOMIST, Aug. 21, 2008.

<sup>58</sup> Lastowka, *supra* note 24, 910, referring to Linden Lab’s data sources.

<sup>59</sup> *Id.* 916. See also the most prominent of cases, *Bragg v. Linden Research, Inc.*, 487 F. Supp. 2d 593 (E.D.Pa. 2007). For a commentary, see Candidus Dougherty, *Bragg v. Linden: Virtual Property Rights Litigation*, 9 E-COM. L. & POL’Y (2007).

<sup>60</sup> Lastowka, *supra* note 24, 916.

<sup>61</sup> Mayer-Schönberger & Crowley, *supra* note 33, 1807.

<sup>62</sup> As Benkler puts it: “Unlike other games [...] *Second Life* offers only tools, with no story line, stock objects, or any cultural or meaning-oriented context whatsoever. Its users have created 99 percent of the objects in the game environment”. See Benkler, *supra* note 25, 136.

even engage in virtual sex. In essence, even if virtual worlds are not designed as games, they eventually seem to be treated as games; yet the game played becomes unclear and, therefore, potentially less compelling to new users".<sup>63</sup>

To conclude on this second limitation of UCC in digital games, which are in essence commercial entities making their own rules, the environment may be still too fluid to enable one to state with certainty which model would prevail and how precisely UCC and the opportunities for creativity will play out in each of these models, especially since so far most UCC has been generated without the expectation of profit.<sup>64</sup> While it is the conventional wisdom in traditional media markets to be highly suspicious of the contribution of commercial forces to the diversity and quality of content,<sup>65</sup> there are certain nuances to digital games as media products that cannot be ignored. The first relates to the specific modality of UCC production – although it occurs in a commercial setting, it is itself not driven by economic benefit but by complex individual motives (e.g. self-expression, altruism, reputation, advocacy of particular political or social views) and complex collaborative processes.<sup>66</sup> The second specificity concerns the already widely acknowledged value of UCC as an asset to the industry and as an essential ingredient of the game environment.<sup>67</sup> This may render divides between commercial and non-commercial, between private and of the community more porous. In this process, the risk of turning UCC into just another selling tool and thus commodifying in-game creativity should not be overlooked. This peril is made apparent in the existing property rules for UCC, which are considered in the next section.

### 3. Intellectual Property Rights

As noted above, virtual worlds vary in the extent to which they facilitate user creativity and allow autonomous creation of content. They also vary in the degree to which they acknowledge these creations in terms of intellectual property rights (IPR).<sup>68</sup> Before delving into detail on these different grades of intellectual property protection, the legal situation can be broadly described as one of complexity and uncertainty, which may already be deemed chilling to creativity. Under-

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<sup>63</sup> Lastowka, *supra* note 24, 914–915. For a diverging opinion, see Cory Ondrejka, *Changing Realities: User Creation, Communication, and Innovation in Digital Worlds*, ANNENBERG SCHOOL OF COMMUNICATION WORKING PAPER 1–23 (2005).

<sup>64</sup> OECD, *supra* note 8, 4.

<sup>65</sup> See, most prominently, C. EDWIN BAKER, *MEDIA, MARKETS, AND DEMOCRACY* (2001).

<sup>66</sup> John Quiggin & Dan Hunter, *Money Ruins Everything*, 30 HASTINGS COMM. & ENT. L.J. 203, 227–237 (2008). See also Nick Yee, *Motivations to Play*, 9 CYBERPSYCHOLOGY & BEHAVIOR 772–775 (2006); John Banks & Sal Humphreys, *The Labour of Co-Creators: Emergent Social Network Markets*, 14 CONVERGENCE 401 (2008).

<sup>67</sup> Ondrejka makes a positive statement in respect to commodification: "Atomistic creation is helped by commoditization rather than harmed by it. By driving competition and rewarding innovation, economic connections provide a context for user creation. In fact, economic connections are a requirement for generating large-scale artistic and game content. While Open Source methodologies are extremely effective at solving modular problems that benefit from incremental additions, few games and entertainment experiences fit this model. Instead, they require long time commitments from large, heterogeneous teams. Economic motivations help to ensure success". See Ondrejka, *supra* note 3, 19.

<sup>68</sup> Under IPR as a general category, one understands the rights granted to creators and inventors to control the use made of their productions. They are traditionally divided into two main branches: (i) "copyright and related (or neighbouring) rights" for literary and artistic works and (ii) "industrial property", which encompasses trademarks, patents, industrial designs, geographical indications and the layout designs of integrated circuits. Most pertinent in the present context is the discussion of copyright protection.

enforcement of copyright law, which has been practised by some digital game providers,<sup>69</sup> does not necessarily improve the situation and simply makes the grey legal zone a shade darker.

As a starting point, it needs to be emphasised that what we have been addressing until now collectively as UCC (and despite certain confines we put on the term) is only a definitional shortcut for an incredible variety of works. These may vary from a T-shirt design for avatars, through game level maps to the most sophisticated MODs (user modifications of the source art, characters, environments, etc.) that completely alter the game-play, or to completely new art forms, such as machinima.<sup>70</sup> Depending on the concrete form of UCC, different types of IP protection may be awarded.<sup>71</sup> Whereas one could argue that some types of UCC are original expressions, most UCC would more readily fall under the “problematic” category of derivative works,<sup>72</sup> which use certain elements of copyrighted content (of the game owner or of third parties<sup>73</sup>) and are not copyrightable without the owner’s permission.<sup>74</sup>

Such works may still be protected under the fair use doctrine<sup>75</sup> (or the corresponding limitations and exceptions to copyright, as known in the European legal tradition<sup>76</sup>). Fair use,

<sup>69</sup> For instance by Electronic Arts. See Hayes, *supra* note 46, 583.

<sup>70</sup> Machinima (a combination of the words “machine” and “cinema”) is the recording and editing footage generated within the game. Machinima creators use the graphics, characters and/or sounds of a video game (normally a first-person shooter or MMOG) to create a computer-animated film in real time. *Red vs. Blue* is perhaps one of the most famous machinima video series, which was created by *Rooster Teeth Productions* and chronicles the story of two opposing teams of soldiers fighting a civil war in the middle of a desolate box canyon in a parody of first-person shooter games, sci-fi films and military life. Machinima is being increasingly mainstreamed and enjoys growing popularity (see e.g. <http://www.machinima.com/>). For a comprehensive analysis of machinima, see HENRY LOWOOD, *Found Technology: Players as Innovators in the Making of Machinima*, in DIGITAL YOUTH, INNOVATION, AND THE UNEXPECTED 165–196 (Tara MacPherson, ed., 2008). See also Matthew Brett Freedman, *Machinima and Copyright Law*, 13 J. OF INTELL. PROP. L. 235 (2005).

<sup>71</sup> For an excellent overview of the different types of protection that may be awarded, see Marcus, *supra* note 30, 76–79. See also Casey Fiesler, *Everything I Need to Know I Learned from Fandom: How Existing Social Norms Can Help Shape the Next Generation of User-Generated Content*, 10 VAND. J. ENT. & TECH. L. 729 (2008).

<sup>72</sup> “A ‘derivative work’ is a work based on one or more preexisting works, such as translation, musical arrangement, dramatization, fictionalization, motion picture version, sound recording, art reproduction, abridgment, condensation, or any other form in which a work may be recast, transformed, or adapted” (Section 101 of the US Copyright Act of 1976, contained in Title 17 of the US Code).

<sup>73</sup> In *Marvel v. NCSoft*, for instance, Marvel, a publisher of superhero comic books, sued NCSoft, the owner of the MMO *City of Heroes*, for direct and contributory copyright infringement, since the game *City of Heroes* allowed players to create superhero characters and customise them. The case was eventually settled, but it is worth mentioning that the court dismissed most of Marvel’s claims before the settlement. See *Marvel Enters. v. NCSoft Corp.*, 74 U.S.P.Q.2d 1303 (C.D. Cal. 2005).

<sup>74</sup> “Subject to sections 107 through 120, the owner of copyright under this title has the exclusive rights to do and to authorize any of the following: [...] (2) to prepare derivative works based upon the copyrighted work [...]” (Section 106 of the US Copyright Act).

<sup>75</sup> The fair use doctrine as a broad category is typical to the US. Other jurisdictions, such as the UK and Canada, have the so-called “fair dealing” exemptions for activities, such as news reporting, parody and criticism, which have been developed by the courts’ practice and some legislation. Civil code countries like Germany, France and most of the other EU Member States, enumerate specifically the exemptions to copyright, which are similar in essence to those under the fair use doctrine. In the following, we refer to the US law and practice since most relevant cases until now have been in the US.

Under US law, the fair use limitation on exclusive rights sets out four factors to consider: “(1) the purpose and character of the use, including whether such use is of a commercial nature or is for non-profit educational purposes; (2) the nature of the copyrighted work; (3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and (4) the effect of the use upon the potential market for or value of the copy-righted work” (Section 107 of the US Copyright Act).

however, is not a straightforward but rather a risky defence, which is a fact-intensive affirmative exercise requiring a case-by-case analysis.<sup>77</sup> This risk, combined with the high cost of litigation, may deter users from engaging in activities on the borderline,<sup>78</sup> in particular considering that up to now courts have tended to interpret MODs narrowly, categorising them as non-copyrightable derivative works.<sup>79</sup>

It should also be borne in mind that the fair use doctrine may not be applicable to all cases. Some games are designed through code and contract as complete “walled gardens” rendering them “immune” to fair use. The EULA of *WoW* states, for instance, that users “may not, in whole or in part, copy, photocopy, reproduce [...] or create derivative works based on the Game”.<sup>80</sup> These shrink-wrap licences have been tested in the US<sup>81</sup> and found not to be pre-empted by the Copyright Act and are enforceable contracts under the Uniform Commercial

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<sup>76</sup> At the EC level, copyright limitations are only partly harmonised (except for computer programs and databases). Directive 2001/29/EC on the harmonisation of certain aspects of copyright and related rights in the Information Society (OJ L 167/10, 22 June 2001), which implemented the WIPO Copyright Treaty and the WIPO Performances and Phonograms Treaty (both adopted in Geneva, 20 December 1996), was also intended to clarify the permissible limitations under EC copyright law, with respect to both analogue and digital works. Such clarity, however, proved elusive and as a compromise, the Directive introduced an exhaustive list of 21 optional limitations in addition to the “three-step-test”. The three-step-test requires that limitations and exceptions must be (i) confined to special cases; (ii) not in conflict with a normal exploitation of the work; and (iii) of no unreasonable prejudice to the legitimate interests of the author. It was first applied to the exclusive right of reproduction by Article 9(2) of the Berne Convention for the Protection of Literary and Artistic Works in 1967. Since then, it has been transplanted into the TRIPS Agreement, the EC Copyright Directive and the WIPO Copyright and Performances and Phonograms Treaties. Article 10 of the WIPO Copyright Treaty adds expressly that signatory countries may devise new exceptions and limitations that are appropriate in the digital network environment. For an overview on exceptions and limitations, see PAUL GOLDSTEIN, *INTERNATIONAL COPYRIGHT: PRINCIPLES, LAW AND PRACTICE* 249–270, 292–319 (2001).

<sup>77</sup> *Campbell v. Acuff-Rose Music*, 510 U.S. 569 (1994). On the practical limitations of applying fair use, see Michael W. Carroll, *Fixing Fair Use*, 85 N. C. L. REV. 1087 (2007). See also Rebecca Tushnet, *Copy This Essay: How Fair Use Doctrine Harms Free Speech and How Copying Serves It*, 114 YALE L. J. 535 (2004). On the divergences in applying the four factors, see an overview of the US case law in David Nimmer, “*Fairest of Them All*” and Other Fairy Tales of Fair Use, 66 L. & CONTEMP. PROBS. 262, 267–277 (2003).

<sup>78</sup> Carroll, *id.*, 1096.

<sup>79</sup> See *Micro Star v. Formgen Inc.*, 154 F.3d 1107 (9<sup>th</sup> Cir. 1998). In *Micro Star*, a collection of game levels (called “Maps”) created by the users was held to be derivative work but outside fair use, even though the code used for their creation did not include any of the original game’s code. For a fully-fledged analysis of MODs and the available US case law, see Baldrica, *supra* note 14.

<sup>80</sup> At section 4.A. As Marcus lucidly notes, “[t]he platform owners might take a valued user-created object and sell it. The value that might exist, either monetarily or otherwise, is unceremoniously stripped from the creator”. See Marcus, *supra* note 30, 80.

<sup>81</sup> In Europe, the matter is more complicated because one needs to take into account both the different rules at the national level and those that have been harmonised at the European level, as well as the lack of harmonisation of the exceptions to copyright law. Furthermore, depending on the type of content, different Directives will be applicable – e.g. the Computer Software, the Database or the Directive on Copyright in the Information Society. With regard to UCC, most probably the latter applies. It must be noted that the Directive on Copyright in the Information Society (*supra* note 76) does not limit the principle of freedom of contract, and allows owners the unrestricted ability to impose contractual restrictions that would go beyond copyright law on users of the works. Article 9 of the Directive expressly states that it shall be “without prejudice to provisions concerning [...] the law of contract”. For a comprehensive analysis, see Jacques de Werra, *Moving beyond the Conflict between Freedom of Contract and Copyright Policies: In Search of a New Global Policy for On-Line Information Licensing Transactions*, 25 COLUM. J.L. & ARTS 239, 318–346 (2003).

Code,<sup>82</sup> although numerous scholars have argued against such ownership over creative activities that would have been protected in the real world, even if it were privately owned.<sup>83</sup>

While other companies, like Microsoft, have not been as strict as *WoW*'s Blizzard Entertainment and allow players to retain their fair use rights, all in all, it would take a considerable level of legal expertise, which a regular game player is unlikely to possess, to decipher and distinguish between the given terms and conditions, and to fully understand their implications.<sup>84</sup> Furthermore, incentives to join the game are rarely based only on the more advantageous copyright framework but on other, social or ludological, virtues of the game.

The counterpart to the model of a (more or less) "walled garden" is *Second Life*'s "liberation" of UCC model, which grants *Second Life* residents IP over their creations, both in virtual and in real life. This solution has been widely celebrated as a breakthrough in commodified virtual realities and as experimenting with linking virtual and real environments.<sup>85</sup> However, in practice, it has been hard to implement and troubled with aggressive litigation.

This "real-world legal DNA into *Second Life*'s genetic makeup"<sup>86</sup> has been problematic for a number of reasons: First, because copyright laws had not been written to apply to the types of creative expression that virtual environments enable, i.e. creation through collaboration and modification of prior existing virtual objects.<sup>87</sup> Second, because of the very nature of in-game creation, infringement occurs often and is not easily subsumed under "real" copyright rules.<sup>88</sup> Third, because neither the user-based licensing structure nor the ToS is clear enough to provide ready help.<sup>89</sup> In addition, since "users carry on a robust market for these objects, copyright holders have an incentive to protect and enforce the rights that they believe they have".<sup>90</sup> As

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<sup>82</sup> *ProCD Inc. v. Zeidenberg*, 86 F.3d 1447 (7<sup>th</sup> Cir. 1996) and *Harold L. Bowers v. Baystate Technologies, Inc.*, 320 F.3d 1317 (Fed. Cir. 2003). For a comparative legal analysis, see de Werra, *id.* See also LUCIE M.C.R. GUIBAULT, COPYRIGHT LIMITATIONS AND CONTRACTS: AN ANALYSIS OF THE CONTRACTUAL OVERRIDABILITY OF LIMITATIONS ON COPYRIGHT (2002).

<sup>83</sup> Castronova, *supra* note 11, 198. See also Gregory Lastowka & Dan Hunter, *The Laws of the Virtual Worlds*, 92 CAL. L. REV. 1 (2004).

<sup>84</sup> A recent report shows that many of the user-generated video creators are not informed or are misinformed about the copyright law. See PAT AUFDERHEIDE & PETER JASZI, THE GOOD, THE BAD, AND THE CONFUSING: USER-GENERATED VIDEO CREATORS ON COPYRIGHT (2007).

<sup>85</sup> See e.g. Ondrejka, *supra* note 28.

<sup>86</sup> Mayer-Schönberger & Crowley, *supra* note 33, 1809.

<sup>87</sup> Marcus, *supra* note 30, 81–83.

<sup>88</sup> "Understanding copyright infringement in the context of *Second Life* derivative works is more complicated. One distinction between a derivative work and a simple reproduction is that the derivative work creates an object in a new market when new material is added that is independent of the original underlying work. But this definition does not work if the entire platform is seen as one market. Defining submarkets in order to understand whether a work infringes a derivative right could be difficult. Is a virtual boat just a boat? Or is a boat a shoe, or a hat, because an avatar can actually attach the object to any part of itself? Or is a boat another building block to create something entirely different? Because each object is a visual or audio-visual work within a single platform, there may be no legal difference between objects within any platform-specific submarkets. It is possible that any creation within a virtual world could be legally considered within the same market, and that any substantial similarity of one creation to another implicates only the right of reproduction. Moreover, if an object can be exported, or the elements of that object can be copied into another virtual world, then infringement occurs external to the platform". See Marcus, *supra* note 30, 83 (footnotes omitted).

<sup>89</sup> Marcus, *id.* 68–69, referring also to Jack M. Balkin, *Virtual Liberty: Freedom to Design and Freedom to Play in Virtual Worlds*, 90 VA L. REV. 2043, 2049–2050 (2004).

<sup>90</sup> Marcus, *supra* note 30, 69.

Lastowka puts it, “[w]hen people have real stakes in virtual worlds, they tend to act consistent with their investment-backed expectations”,<sup>91</sup> leading, as already mentioned, to a lot of litigation.

On the whole, what many had expected to become the heaven of UCC, has turned out otherwise. Because of the inherent complexity and the lack of clarity of property rights, creators tend to prohibit modifications of their objects<sup>92</sup> and file suits against likely infringements. “Either avenue restricts creativity – either through the chilling effect of suit, or from a mechanical restriction on one of the ways in which creation occurs”.<sup>93</sup>

Interestingly, some less open but clearer rules may prove to work better. As previously noted, UCC is increasingly becoming a valuable competitive advantage in itself and this has prompted efforts to accommodate it better in the IP domain as well (notably by the greatest money-makers of the game industry). In August 2007, for example, Microsoft allowed the limited non-commercial use of copyrighted content from Microsoft’s games to create new derivative works – “things like machinima, videos and other cool things”.<sup>94</sup> Blizzard Entertainment soon followed suit, although only with specific regard to the creation of machinima.<sup>95</sup>

The effect of these customised licences is contested.<sup>96</sup> The shift from requiring users to assign all rights generated from their creations to allowing them to retain some, appears beneficial especially in the short term since it provides legal certainty for creators. However, this should not necessarily be interpreted as a fracture in the “copyright capitalism”<sup>97</sup> since it may bind creators to the game platform and restrain their freedom,<sup>98</sup> particularly since commercial purposes are as a rule excluded.<sup>99</sup> It is no coincidence that it has been precisely the two game industry giants that issued such licences finding them a “convenient” way to regulate fan works, which generate sizeable positive externalities for their own game products.<sup>100</sup> Ultimately, such licences provide no long-term solution that is to be located in the copyright framework<sup>101</sup> but merely put a contractual layer over the copyright law.

<sup>91</sup> Lastowka, *supra* note 24, 916.

<sup>92</sup> For instance, while the Creative Commons (cc) licence was introduced in *Second Life* as a potentially more flexible and less restrictive form of licensing, it has remained largely unused.

<sup>93</sup> Marcus, *supra* note 30, 84.

<sup>94</sup> See Game Content Usage Rules, at <http://www.xbox.com/en-us/community/developer/rules.htm>.

<sup>95</sup> See Letter to the Machinimators of the World, <http://www.worldofwarcraft.com/community/machinima/letter.html>.

<sup>96</sup> For an analysis of these customised rules and their impact, see Hayes, *supra* note 46.

<sup>97</sup> Andrew Leyshon, *Scary Monsters? Software Formats, Peer-to-peer Networks, and the Spectre of the Gift*, 21 ENV'T. AND PLANNING D: SOC'Y & SPACE 533 (2003).

<sup>98</sup> Such machinima-like creations may in fact enjoy more freedom without the licence. In *Mattel v. MCA Records*, 296 F. 3d 894 (9<sup>th</sup> Cir. 2002), for instance, the Court of Appeals for the Ninth Circuit found that “Barbie Girl” by the Dutch band Aqua, which allegedly infringed Mattel’s trademark of Barbie, was not purely commercial speech and therefore fully protected under the First Amendment.

<sup>99</sup> Hayes, *supra* note 46, 571–574. “Microsoft and Blizzard were presumably motivated to draft these licenses because they wanted to strike a balance encouraging fan-generated derivative works while simultaneously retaining control of their copyrighted assets, protecting their current business structure and preserving potential revenue streams from licensing”. *Id.* at p. 585.

<sup>100</sup> Hayes, *id.*, 580–582. See also Sonia K. Katyal, *Performance, Property, and the Slashing of Gender in Fan Fiction*, 14 J. GENDER, SOC. POL'Y & THE L. 463, 508 (2006).

<sup>101</sup> For some proposals on copyright law reform, see e.g. LAWRENCE LESSIG, *FREE CULTURE* 287–306 (2004); Pamela Samuelson, *Preliminary Thoughts on Copyright Reform*, 3 UTAH L. R. 551 (2007). With particular regard to reforming fair use, see Wendy J. Gordon & Daniel Bahls, *The Public’s Right to Fair Use: Amending Section 107 to Avoid the “Fared Use” Fallacy*, 3 UTAH L. R. 619 (2007).



In what may reasonably be expected to be a long and arduous search for the appropriate copyright reform, some interim solutions at lower levels of governance may be helpful. In this respect, Hayes proposes, for instance, an improvement of custom-made licences, which will do away with the idiosyncratic nature of licences for each and every type of digital game, which may be related to transaction costs of complying for creators<sup>102</sup> and/or possible incompatibility between the differently licensed bundle of rights.<sup>103</sup> Hayes argues for a standardised licence along the lines of the GPL (GNU General Public Licence)<sup>104</sup> or the Creative Commons (cc) licence.<sup>105</sup> Such a licence would be negotiated between publishers and users, and adopted by the entire video game industry, which short of a comprehensive overhaul of copyright regulation, would provide legal certainty for creators,<sup>106</sup> possibly also reducing the commodifying assaults by single strongly positioned game providers. Marcus, building on his analysis of the intricacies of copyright and copyright enforcement in *Second Life*, suggests an even more localised solution at the platform level, where “an expansive set of well defined code-based user licenses can let the users themselves have the greatest control over their creations [...] [and] provide the most appropriate set of incentives to encourage the greatest amount of creative activity”.<sup>107</sup>

The media industry and some civil society organisations,<sup>108</sup> having grasped the vital role UCC may play as a channel of innovative creation, have already set up some best practice principles (although not specifically related to digital games) that attempt to draw a clearer line between legal and illegal practices, embracing also fair use application and putting forward some procedural mechanisms to make it work. Yet, such initiatives, although positive, barely change the complex and vastly user-unfriendly IP environment. On the other hand, they serve as fillers of the gap between the legal framework and the practical reality, exposing the need for law’s adaptation.

### B. Assessment of the Value of UCC in Virtual Worlds

We have repeatedly noted that digital games differ from one to another, some allowing more opportunities for creative play than others. Based on current practice, legal rules and anecdotal evidence, we have also elaborated on some of the existing quantitative and qualitative limitations on UCC within game environments. Before we assess the value of UCC in virtual worlds, it is critical to know, at least from a bird’s eye view,<sup>109</sup> what the market for virtual worlds looks like, so that we can visualise the relationship between those digital game environments that allow and

<sup>102</sup> Hayes, *supra* note 46, 585.

<sup>103</sup> *Id.*, 586.

<sup>104</sup> <http://www.gnu.org/licenses/gpl.html>.

<sup>105</sup> <http://creativecommons.org/license/>. Very comprehensively on cc, see Lydia Pallas Loren, *Building a Reliable Semicommons of Creative Works: Enforcement of Creative Commons Licenses and Limited Abandonment of Copyright*, 14 GEO. MASON L. REV. 271 (2008).

<sup>106</sup> *Id.*, 586–587.

<sup>107</sup> Marcus, *supra* note 30, 91–92.

<sup>108</sup> In 2007, the Electronic Frontier Foundation together with other concerned organisations published its “Fair Use Principles for User Generated Content” (see <http://www EFF.org/issues/ip-and-free-speech/fair-use-principles-usergen>). In October 2007 a few of the world’s leading media companies, including CBS, Dailymotion, Fox Entertainment, Microsoft, MySpace, NBC, Sony, Veoh, Viacom and Walt Disney also announced their joint support for a set of principles that would enable the continued growth and development of user-generated content online and respect the intellectual property of content owners (see <http://www.ugcprinciples.com/index.html>).

<sup>109</sup> There is no practical way to compare UCC across virtual worlds since it is such a complex mix of creations and practices occurring in idiosyncratic space. Data exists for some specific worlds, such as *Second Life* or *WoW* (mostly provided by the owner companies) but this does not necessarily mean that one can compare them.

foster UCC and those that provide a sparse set of tools and little latitude for production and distribution of UCC. Such an overview is inevitably only a snapshot of the present market situation but is still useful especially for not game-savvy readers, who occasionally hear of *Second Life* in the news but have not necessarily heard of *RuneScape*.<sup>110</sup> The concrete market fluctuations in the case of MMOGs are in fact unlikely to change the picture of the global market substantially, where *WoW* is the leader with an impressive share of 62.2%, measured by active subscriptions. Some 33.4% are then taken by eleven similar fantasy/adventure games,<sup>111</sup> and the remaining 5.4% are distributed between other MMOGs (of which *Second Life* is one).<sup>112</sup>

This extreme distribution of market shares and the above-sketched constrictions of UCC in digital game environments, make it evident that at least purely quantitatively in most virtual worlds today, UCC does *not* play a central role.<sup>113</sup> This in itself may be a hint that its value and contribution to a more culturally diverse environment is likely to be limited. We investigate this claim further in the next sections and explore whether and how the limitations of UCC within digital game spaces have also constrained the virtues normally associated with UCC, and what the repercussions for the diversity of cultural expressions within game environments may be.

### 1. Pessimism on the Surface

It is rarely that one encounters an analysis of the concrete value of UCC in virtual worlds.<sup>114</sup> As already signalled, the discussion on UCC is often scrambled and mixes together a wide variety of otherwise distinct content categories (such as design, text, performance, film or other audiovisual works), although it has been acknowledged that usually, "UCC types are intricately linked to specific UCC distribution platforms".<sup>115</sup> In the prevailing general (i.e. not game-specific) discussion of UCC, it is celebrated as a grassroots revolution that is utterly changing the way cultural content is produced, distributed and consumed, modifying the way media markets function, and also the way people engage and communicate as citizens. The 2007 OECD report on the participative web, which has now become a standard reference on the topic, stated that:

"UCC is in many ways a form of personal expression and free speech. As such, it may be used for critical, political, and social ends. It has also been argued that the 'democratisation of

<sup>110</sup> <http://www.runescape.com/>.

<sup>111</sup> These eleven games in order of reducing market share are: *RuneScape* (7.5%); *Lineage* (6.6%); *Lineage II* (6.3%); *Final Fantasy XI* (3.1%); *Dofus* (2.8%); *EVE Online* (1.5%); *EverQuest II* (1.2%); *EverQuest* (1.1%); *The Lords of the Rings Online* (0.9%); *City of Heroes* (0.8%); and *Tibia* (0.6%).

<sup>112</sup> These statistics are put together by Bruce Woodcock, made available and regularly updated at <http://www.mmogchart.com/>. See in particular <http://www.mmogchart.com/Chart7.html>, last updated April 2008. Also interesting is the data provided by market share subscription by genre. There, fantasy games take 94.2% of the market, sci-fi/superhero 3.7%, combat simulation/first person shooter games 0.2% and the remaining 1.9% is accounted for by puzzle/social/other (see <http://www.mmogchart.com/Chart8.html>). There are two caveats to be made with regard to this data. Firstly, as Woodcock himself admits, does not cover *all* existing MMOGs. Secondly, the data reflects the situation of the global market. It may very well be the case, that other games have stronger positions within national markets, for instance, *Lineage* in South Korea. For the situation in the US (although not only with regard to MMOGs), see Amanda Lenhart et al., *Teens, Video Games, and Civics*, PEW INTERNET AND AMERICAN LIFE PROJECT, Sept. 16 2008.

<sup>113</sup> Confirming Lastowka, who notes, "currently, in most virtual worlds, user-generated content [...] actually does not play a central role". See Lastowka, *supra* note 24, 908.

<sup>114</sup> For a comprehensive bibliographical list on virtual worlds, see Lastowka, *id.*, p. 903, note 37. Lastowka himself is one of the notable exceptions.

<sup>115</sup> OECD, *supra* note 8, 15.

access to media outlets' fulfils an increasingly important role for democracy, individual freedom, political discourse, and justice".<sup>116</sup>

The report goes on to say that, in the broader sense of Internet-induced implications, the "[c]hanges in the way users produce, distribute, access and re-use information, knowledge and entertainment potentially give rise to *increased user autonomy, increased participation and increased diversity*".<sup>117</sup> Another expression of such far-reaching optimism can be found in the writings of Yochai Benkler. In analysing the mechanisms of peer production and distribution and their virtues, Benkler notes that,

"[these] hint at the emergence of a new information environment, one in which individuals are free to take a more active role than was possible in the industrial information economy of the twentieth century. This new freedom holds great practical promise: as a dimension of individual freedom; as a platform for better democratic participation; as a medium to foster a more critical and self-reflective culture; and, in an increasingly information-dependent global economy, as a mechanism to achieve improvements in human development everywhere".<sup>118</sup>

These strong positive effects associated in general with the emergence of the web as a new communication platform and in particular with the rise of UCC, not in the sense of mere output but rather as a process of creative expression of individuals and the community of individuals, and of communication between them, is what we refer to as *primary effects* of UCC. These effects and specifically the three cross-sectional trends of increased user autonomy, increased participation and increased diversity,<sup>119</sup> have also a clear and strongly positive correlation to the diversity in cultural expressions (even after filtering out those implications of user participation that have a broader impact on the information and communication environment with repercussions more immediate to the functioning of the public sphere<sup>120</sup>). Indeed, the OECD Working Party on the Information Economy has explicitly emphasised that,

"the creation of UCC usually boosts the availability and diversity of local content in diverse languages. With lower entry barriers downstream and increased demand for content and lowered entry barriers upstream, the creation of content and overall cultural wealth could be positively influenced and the identification of artists facilitated".<sup>121</sup>

The decreases in the costs of becoming a producer of information also have the potential to reduce the three trends in media markets that are antagonistic to cultural diversity, namely those of concentration, commercialisation and homogenisation.<sup>122</sup>

<sup>116</sup> OECD, *id.*, 36. The OECD refers to prominent voices such as those of Balkin, Fisher, Lessig and Benkler (see Jack M. Balkin, *Digital Speech and Democratic Culture: A Theory of Freedom of Expression for the Information Society*, 79 N.Y.U. L. REV. 1 (2004); WILLIAM W. FISHER III, *PROMISES TO KEEP: TECHNOLOGY, LAW, AND THE FUTURE OF ENTERTAINMENT* (2004); LAWRENCE LESSIG, *FREE CULTURE* (2004); Benkler, *supra* note 25).

<sup>117</sup> OECD, *supra* note 8, 5 (emphases added).

<sup>118</sup> Benkler, *supra* note 25, 2.

<sup>119</sup> OECD, *supra* note 8, 35 and *passim*.

<sup>120</sup> See NICHOLAS GARNHAM, *The Media and the Public Sphere in, HABERMAS AND THE PUBLIC SPHERE* 359–376 (Craig Calhoun ed., 1993).

<sup>121</sup> OECD, *supra* note 8, 41. These thresholds are much lower in the digital environment because there are no gatekeepers of the type that exist in traditional media publishing, who decide whether or not certain cultural work is to be published, broadcast or otherwise made available to the public. See OECD, *id.*, 4, 21–22.

<sup>122</sup> Benkler frames this argument in a negative way and claims that, "increases in costs [of becoming a producer of information] lead to three effects: (i) Concentration – because the cost of becoming a professional provider of the type whose activity is facilitated by the regulation creates an entry barrier; (ii) Commercialization – because of the high cost providers must adopt a strategy that relies on sale of their information and cultural products, and it becomes more difficult to sustain production on a noncommercial model; (iii) Homogenization – because most

All these positive effects however only possible and can only have their full impact, if we admit, as the sources above do, that the thresholds for participation in the processes of creation, distribution and consumption of cultural content are low and allow the engagement of a wide majority of the society, if not the whole society.<sup>123</sup> If this condition is fulfilled, UCC types and platforms can be seen as highly beneficial to cultural diversity and even as taking up or complementing functions presently attributed to public service broadcasting (such as stimulation of the public debate, social cohesion,<sup>124</sup> or production and dissemination of local content).<sup>125</sup> This is however not the case with UCC in digital game environments.<sup>126</sup>

First, and regardless of the game-specific limitations, this is not true because of the barriers existing to entering the game space. As the usual hindrances, one can list here access to infrastructure, broadband, hardware and media literacy, as well as the costs related to playing a certain game (especially MMOGs), which should not be underestimated. These thresholds may be too high to overcome, in particular for players coming from developing countries or poor parts of society in developed countries, thus making the overall picture already one of discrimination and privileged access.

Second, because of the constraints inherent to digital game environments, as outlined in some detail above, the quantity and the variety of UCC appear insufficient. Game spaces, on the whole, do not allow full creative freedom. The environment is to a substantial degree already given and creative activities remain highly dependent on the willingness of game developers to “co-operate”. The legal constraints on these activities and on individuals and communities of creators are indeed harsh and through private contract and copyright shackle creators. Although as UCC evolves and turns into a major economic attribute of the game (in terms of both existing creative output and of creative potential), the “chains” have been somewhat loosened, but are by no means broken. Indeed, following the experience of other Web 2.0 phenomena (such as social networking, video and picture sharing),<sup>127</sup> commodification of UCC may be intensified as companies monetise on UCC in a more targeted manner, basically using the free labour of gamers.

The primary effects of UCC do not thus unfold, at least not for all types of game environment. This deep positive impact appears to be felt only in virtual worlds of the *Second*

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producers must be commercial, their reasons to produce are similar, and their need to attract wide audiences leads to convergence of the content towards the mainstream and the inoffensive”. See Yochai Benkler, *From Consumers to Users: Shifting the Deeper Structures of Regulation toward Sustainable Commons and User Access*, 52 FED. COMM. L.J. 561, 576 (2000).

<sup>123</sup> Here the divide between the digital haves and the digital have-nots within a society and between societies needs to be taken into consideration. This gap aggravates already existing social fragmentation and inter-generational gaps. In the cultural context, such fragmentation may also mean that the common set of shared cultural content diminishes as “UCC leads to greater individualisation of the cultural environment, exacerbating the already existing trend towards the multiplicity of media channels and the diminishing societal role of a few national broadcasting channels for political discourse and shared national values”. OECD, *supra* note 8, 39.

<sup>124</sup> The effect of UCC on social cohesion is in fact controversial. Some argue that, “as more participate in the process of building and cultivating culture and possibly in the democracy surrounding them, greater identification of users with culture and society and less alienation may result”. See OECD, *supra* note 8, 36, referring to Benkler, *supra* note 25. These processes do however evolve simultaneously with the cultural fragmentation and increasing literacy gaps, as outlined above in the preceding note.

<sup>125</sup> OECD, *supra* note 8, 43.

<sup>126</sup> See more generally Peter S. Jenkins, *The Virtual World as a Company Town – Freedom of Speech in Massively Multiple On-line Role Playing Games*, 8 J. OF INTERNET L. (2004)

<sup>127</sup> Lastowka, *supra* note 24, 900–902.

*Life* sort, whose thresholds for participation, engagement, communication and creation are comparatively low and which, through their positioning in societal life and in the overall media landscape (also with conventional media outlets entering<sup>128</sup>), can broaden and enrich the public discourse and foster local content production and dissemination, which is ultimately an expression “result[ing] from the creativity of individuals, groups and societies” in the sense of the UNESCO Convention on Cultural Diversity.<sup>129</sup>

Yet, recollecting the distribution of shares in the MMOG market, *Second Life* seems to be the exception rather than the rule and its prominence in the media and in academic research may mislead one as to the overall impact of UCC production in virtual worlds. In the MMOG environments, which dominate the market and engage the widest group of players, although the availability and diversity of local content in diverse languages is on the increase,<sup>130</sup> we are observing isolated islands of creativity. And, although they generate “a discrete element of ‘content’ that was in the past dominated by centralized professional production”,<sup>131</sup> the liberation from corporate media is only partial and relates to a thin layer of creative output that generally remains within the borderlines of the virtual world.

## 2. Optimism below the Surface

Having expressed this pessimistic view on the current state of UCC in digital game environments, we now argue that there are other (what we call “secondary”) effects of UCC unfolding within these game spaces and beyond them. These effects may be less palpable than the primary ones but potentially even more critical to cultural diversity in the long run, in particular with respect to its dynamic dimension of human creativity.

First, these effects could be seen in the emergence of a public that is better informed and better “consuming” culture.

“[J]ust as learning how to read music and play an instrument can make one a better-informed listener, so too a ubiquitous practice of making cultural artifacts of all forms enables individuals in society to be better readers, listeners, and viewers of professionally produced culture, as well as contributors of our own statements into this mix of collective culture”.<sup>132</sup>

The last sentence of this excerpt signals a second important transformation, namely the blurring of the boundary between consumer and creator, with an increasingly active part being played by the latter. Although admittedly, this is not an entirely new phenomenon and “[a]udiences have always had the opportunity to ‘talk back’ to corporate media or to create their own local media forms [...], the growing dominance of gaming as a media format, the advent of low-cost digital production tools, and online distribution means a much more dynamic range in who participates and how they participate in the production and distribution of media”.<sup>133</sup> In this context, Henry Jenkins celebrates the dawn of a new “convergence culture”, whereby UCC allows the collective mind of the audience to criticise<sup>134</sup> and personalise popular narratives

<sup>128</sup> Reuters and BBC for instance joined *Second Life* back in 2006.

<sup>129</sup> Article 4(3) UNESCO Convention.

<sup>130</sup> OECD, *supra* note 8, 36.

<sup>131</sup> Benkler, *supra* note 25, 74.

<sup>132</sup> *Id.*, 295.

<sup>133</sup> Mizuko Ito et al., *Foreword*, in Salen, *supra* note 23, vi–ix, viii. On previous modes of “talking back”, see HENRY JENKINS, *TEXTUAL POACHERS: TELEVISION, FANS AND PARTICIPATORY CULTURE* (1992).

<sup>134</sup> Also in the broader sense of playing (and not UCC-specific), critical minds emerge. Bogost notes interestingly in this regard: “playing video games is a kind of literacy. Not the literacy that helps us read books or

leading also towards increased collaboration between the entertainment industry and the audiences.<sup>135</sup> Benkler even goes a step further into the future and argues that,

“[a]s online games like *Second Life* provide users with new tools and platforms to tell and retell their own stories, or their own versions of well-trodden paths, as digital multimedia tools do the same for individuals outside of the collaborative storytelling platforms, we can begin to see a re-emergence of folk stories and songs as widespread cultural practices. And as network connections become ubiquitous, and search engines and filters improve, we can begin to see this folk culture emerging to play a substantially greater role in the production of our cultural environment”.<sup>136</sup>

We are less enthusiastic about the actual equality of the dialogue between the industry and the users (as constructed by Jenkins) and about the deeper impact of UCC circulation (as envisaged by Benkler). Yet, we do acknowledge that new digital media, and in particular game environments, because of their very nature of co-evolving game-play and continuous design, enable patterns of active creation unheard of in the times of passive consumption of broadcasting.

These newly emerged opportunities for participation and creation, however, are not to be seen as a mass undifferentiated process. Rather, they are a series of distinct and at times starkly different modes of engagement and expression that are complex and not yet fully identified, both in terms of their motivation and dynamics and in terms of their impact within the game environment and beyond it. Thus, in the complex context of digital game environments, it may be hard, if not impossible, to foretell which elements of the environment will be the ones generating creativity,<sup>137</sup> how these relate to the whole meaningful play, and what type of content insertion incorporates gamers' belief systems, personal preferences or political opinions and is an expression of their cultural identity.<sup>138</sup> Game technology, as in the case of machinima, which we mentioned above, may also be used “in unanticipated expressive ways in a ‘meta’ creative process – that is, using the game engine, graphics or other elements to create a new expression

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write term papers, but the kind of literacy that helps us make or critique the systems we live in. By ‘system’, I don’t just mean large-scale, impersonal things like political systems. Any social or cultural practice can be understood as a set of processes, and our understanding of each of them can be taught, supported, or challenged through video games. [...] When we learn to play games with an eye toward uncovering their procedural rhetoric, we learn to ask questions about the models such games present”. Bogost, *supra* note 23, 136.

<sup>135</sup> HENRY JENKINS, *CONVERGENCE CULTURE: WHERE OLD AND NEW MEDIA COLLIDE* (2006). In the same vein, Coombe and Herman state: “The Web provides unprecedented opportunities for new and dynamic dialogues between producers of products and imagery and those who consume them. It enables consumers themselves to become producers of mass culture and permits corporate producers to become better consumers of alternative meanings and of customer opinion”. See Rosemary J. Coombe & Andrew Herman, *Culture Wars on the Net: Intellectual Property and Corporate Propriety in Digital Environment*, 100 THE S. ATLANTIC Q. 919, 921 (2001).

<sup>136</sup> Benkler, *supra* note 25, 297.

<sup>137</sup> Moshirnia and Walker give the example of flag modifications within the strategy game *Civilization IV*, where by exploiting this previously unimportant game feature, the historical value of the game has been increased, and flag modifications have come to be a way of cultural expression. See Moshirnia & Walker, *supra* note 56, 363–366.

<sup>138</sup> Moshirnia & Walker, *id.*, 362, referring to Hooper, who conducted a longitudinal study in schools and concluded that students expressed notions of cultural identity in their programmes and were able to engage in digital existentialism, creating electronic version of themselves. See PAULA KAY HOOPER, *THEY HAVE THOUGHTS OF THEIR OWN: CHILDREN’S LEARNING OF COMPUTATIONAL IDEAS FROM A CULTURAL CONSTRUCTIONIST PERSPECTIVE* (1998). See also, T.L. Taylor, *Pushing the Borders: Player Participation and Game Culture*, in *STRUCTURES OF PARTICIPATION IN DIGITAL CULTURE* 113–130 (Joe Karaganis, ed., 2007).

which is no longer a game”.<sup>139</sup> On a more general level, game-play cannot be isolated as a singular activity since “the culture of game play is one that is quite tangled up with other cultural practices”,<sup>140</sup> which essentially only complicates the picture.

Summing up with some optimism, within the category of what we called “secondary” effects, one can discern patterns of participative, interactive and creative practices that are completely new and affect the previously static analogue/offline media space. Their impact has yet to be identified and quantified. It is crucial that until this is done, their potential to contribute to a richer and more diverse cultural environment is not spoiled through aggressive commercialisation or misplaced regulatory intervention.

#### IV. STATE INTERVENTION: NEEDED, POSSIBLE OR HARMFUL TO THE “MAGIC CIRCLE”?

So far we have discussed some features of digital game environments and, in particular, of UCC within and on top of these spaces. We made it clear from the outset that there is not just one game environment, but discrete categories of digital games and even digital games that stand in a category of their own. None of these game environments coincides with national borders but rather all of them, as we noted above, are private spaces. This is not to say that we somehow wish to perpetuate the myth, widespread in the early days of Internet romanticism, that the Internet cannot be regulated,<sup>141</sup> and activities occurring online are immaterial to national law. Indeed, we are witnessing an increasing number of regulatory acts by sovereign states attempting to regulate different aspects of online behaviour and practices,<sup>142</sup> and these acts become further reaching as the significance of the Internet grows and as it becomes assimilated in all facets of society.

Beyond new digital media, which are only one piece of the puzzle (completed by liberalisation, migration and other forces of globalisation<sup>143</sup>), the state is faced with sweeping societal shifts in a globalised world, making modern society increasingly homogeneous across cultures and heterogeneous within them.<sup>144</sup> Under such circumstances, there is a need to revisit understandings of culture and cultural diversity, which “tend to favour ‘billiard ball’ representations of cultures as neatly bounded wholes whose contents are given and static. These understandings downplay ‘the ways in which meanings and symbols of culture are produced through complex processes of translations, negotiation and enunciation’, as well as by contestation and conflict”.<sup>145</sup> To be clear, these are precisely the perceptions of the UNESCO Convention, whose premise is that it is cultural diversity between nations and not within nations that needs to be protected and promoted,<sup>146</sup> and this is a position shared by most states that shapes the cultural policy measures taken by them.

<sup>139</sup> Baldrica, *supra* note 14, 692.

<sup>140</sup> Reed Stevens, Tom Satwicz & Laurie McCarthy, *In-Game, In-Room, In-World*, in Salen, *supra* note 23, 41–66, 43.

<sup>141</sup> JACK GOLDSMITH & TIM WU, WHO CONTROLS THE INTERNET? ILLUSIONS OF A BORDERLESS WORLD (2006).

<sup>142</sup> See with regard to Internet filtering, RONALD J. DEIBERT, JOHN G. PALFREY, RAFAL ROHOZINSKI & JONATHAN ZITTRAIN, ACCESS DENIED: THE PRACTICE AND POLICY OF GLOBAL INTERNET FILTERING (2007).

<sup>143</sup> Madhavi Sunder, *Cultural Dissent*, 54 STAN. L. REV. 495, 498 (2001).

<sup>144</sup> See e.g. ARJUN APPADURAI, MODERNITY AT LARGE: CULTURAL DIMENSIONS OF GLOBALIZATION 48 (1996); ARIF DIRLIK, THE POSTCOLONIAL AURA: THIRD WORLD CRITICISM IN THE AGE OF GLOBAL CAPITALISM 72 (1998).

<sup>145</sup> Yudhishtir Raj Isar, *Cultural Diversity*, 23 THEORY, CULTURE & SOC’Y 371, 372 (2006), at p. 372, referring to NICK STEVENSON, CULTURAL CITIZENSHIP: COSMOPOLITAN QUESTIONS 62 (2003).

<sup>146</sup> State sovereignty is an underlying principle of the UNESCO Convention that is defining for all its provisions and the rights and obligations stemming from them. See Burri-Nenova, *supra* note 53; Rachael Craufurd Smith, *The*

As Sunder perceptively notes, “thus far law has been fearful of the cracks, tears, and ruptures in modern cultures” and despite the seismic cultural changes, has remained “steadfastly committed to the old-world view of cultural diversity as existing across cultures, but not within them”.<sup>147</sup> Characterising law’s current approach to cultural conflicts, as a “cultural survival” approach, which reinforces old notions of imposed identity and cultural integrity, Sunder argues in favour of a new paradigm, which she calls “cultural dissent”, that would recognise cultural change and by acknowledging plurality within culture, “facilitate a normative vision of identity in which individuals can choose among many ways of living within a culture”.<sup>148</sup> Creativity as the essentially dynamic dimension of culture is even harder to grasp and regulators tend to oversimplify (and misunderstand) it by pointing only at the virtues of a working IPR system.<sup>149</sup>

The cultural diversity policies in the media domain provide another example of this misunderstanding, in particular when new modalities of cultural content creation, distribution and consumption need to be accounted for. The EC Audiovisual Media Services Directive (AVMS),<sup>150</sup> for instance, attempts to transplant regulatory solutions from the offline/analogue period, such as a quota system for European works, to digital media outlets.<sup>151</sup> While the availability of a certain amount of European content is to be deemed on the whole positive, it should be noted that a “European work” is by definition content produced with European money without any particular requirements regarding quality, exclusivity, originality or cultural distinctness.<sup>152</sup> As such, the quota system could be plainly equated to a protectionist scheme supporting the European creative industries by securing exposure of the produced works.<sup>153</sup>

State aid, as another of the conventional tools for securing public interest objectives in the media in Europe, functions more or less similarly, providing, in the manner of an exception from the general ban on state aid, for financial support “to promote culture and heritage”.<sup>154</sup> There is a

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*UNESCO Convention on the Protection and Promotion of Cultural Expressions: Building a New World Information and Communication Order?*, 1 INT’L J. OF COMM. 24 (2007).

<sup>147</sup> Sunder, *supra* note 143, 500.

<sup>148</sup> *Id.*, 500–501. In her argumentation, Sunder offers an extremely detailed analysis of the concept of culture, its evolution and how law perceives it.

<sup>149</sup> For a fully-fledged and most eloquent critique, see Cohen, *supra* note 2.

<sup>150</sup> Council Directive 89/552/EEC on the coordination of certain provisions laid down by law, regulation or administrative action in Member States concerning the pursuit of television broadcasting activities, last amended by Directive 2007/65/EC of 11 December 2007, OJ L 332/27, 18 December 2007 (henceforth the *Audiovisual Media Services Directive* [AVMS]).

<sup>151</sup> The AVMS includes a soft-law provision for non-linear media services, which creates an obligation for the Member States to ensure that media service providers under their jurisdiction “promote, where practicable and by appropriate means, production of and access to European works”. It is further clarified that such promotion could relate, inter alia, to the financial contribution to the production and rights acquisition of European works or to the share and/or prominence of European works in the catalogue of programmes. See Article 3(i)(1) AVMS.

<sup>152</sup> The definition of European work is based merely on the construct that a majority of its authors and workers reside in one or more Member States and comply with one of the three conditions: (a) the work is made by one or more producers established in a Member State or States party to the European Convention on Transfrontier Television of the Council of Europe; (b) the production is supervised and actually controlled by producer(s) established in one or more of those States; or for co-productions (c) the contribution of co-producers of those States to the total co-production costs is preponderant and the co-production is not controlled by producer(s) established outside those States. See Article 1(n)(i)–(iii) AVMS.

<sup>153</sup> Mira Burri-Nenova, *The New Audiovisual Media Services Directive: Television without Frontiers, Television without Cultural Diversity*, 44 C. M. L. REV. 1689 (2007).

<sup>154</sup> Article 87(3)(d) EC Treaty. There are a number of other specialised support schemes for the cultural industries. See e.g. Decision No 1718/2006/EC of the European Parliament and the Council of 15 November 2006



growing number of initiatives making use of this exception in the field of games.<sup>155</sup> There is for instance a French tax scheme, which became controversial as to its compatibility with EC law, that enables video game manufacturers subject to taxation in France to deduct up to 20% of the production costs of certain games. The scheme is based on a points system that determines the cultural content of a game pursuant to criteria such as language, levels of artistic expenditure, links to European historical, artistic or scientific heritage.<sup>156</sup> While these financial flows are not to be judged straightforwardly as negative (although their positive impact on the market<sup>157</sup> and on the cultural environment<sup>158</sup> is not established), they do not explicitly guarantee the quality of the content or its reflection of societal or cultural values of importance for that particular constituency. It could be argued that they are rather simplistic and provide support exclusively to game providers in a nationally protectionist way. Presently, there exist no conditions in these financial support schemes that would recognise UCC nor attempts to better accommodate its modalities and foster it. So, while a game may depict a French castle of the reign of Louis XIV, it can completely disregard possible patterns of creativity within the game space and lock all content created within it. Indeed, it is not certain how the market for games will develop – it could be that precisely those small-sized game firms and independent game developers that receive some state support will try to monetise on UCC, while the big companies will allow more space for creative play (as the example of flexible copyright licensing shows).

It should also be acknowledged that all of the above measures seek to create incentives on the supply side for the production of (presumably) culturally diverse content (albeit with no guarantee of its consumption). These measures are essentially based on a model of static point-to-multipoint media with high thresholds for creation and set patterns of distribution. Yet, this model is firstly no longer the only one in existence and, secondly, is under massive pressure to change from both the demand and the supply side, from the outside and from within.

As Benkler has noted, “[i]n the digitally networked environment, there is a better way to serve the goals that have long justified structural media regulation”.<sup>159</sup> Indeed, UCC could be viewed as one of these better ways.<sup>160</sup> While perhaps the environment is still too fluid to propose concrete models, states need to take a fresh look and explore how the goal of a vigorous and

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concerning the implementation of a programme of support for the European audiovisual sector (MEDIA 2007), OJ L 327/12, 24 November 2006.

<sup>155</sup> See e.g. CHRISTOPH BEAT GRABER, *State Aid for Digital Games and Cultural Diversity: A Critical Reflection in the Light of EU and WTO Law*, in GOVERNANCE OF DIGITAL GAME ENVIRONMENTS AND CULTURAL DIVERSITY 170–201 (Christoph Beat Graber & Mira Burri-Nenova eds., 2010).

<sup>156</sup> See European Commission, Decision of 11 December 2007 on State Aid C 47/06, *supra* note 13.

<sup>157</sup> See e.g. José-Antonio García & Damien Neven, *State Aid and Distribution of Competition: A Benchmark Model*, 6 HEI WORKING PAPER (2005).

<sup>158</sup> See Benkler, *supra* note 25, 298. For some insights into cultural economics, see Bruno S. Frey, *State Support and Creativity in the Arts: Some New Considerations*, 23 J. OF CULT. ECON. 71 (1999).

<sup>159</sup> Benkler, *supra* note 122, 567–568.

<sup>160</sup> “Why is this important for cultural policy? Amateur content is typically very localized and often small-scale: for example, blogs address issues of niche and geographic interest, and by definition are not mainstream media sources. Amateur content is about having a local voice, reflecting the needs and interests of a local audience. The local scale of amateur content is, or should be, extremely important to the large range of counties (and smaller geographic entities like states and provinces) that are not commercial exporters of content. [...] Obviously, in a competition over who is more likely to produce material that reflects the national culture, and appeals to the people of, say, Malta, Hollywood executives are going to be less interested than Maltese amateur content producers. Therefore national regulators, who want to produce a vibrant corpus of material that is directed to the ethnic and cultural needs of their people, are much better off encouraging the amateur content producers within their country by intelligent use of their cultural policy”. See Quiggin & Hunter, *supra* note 66, 252–254 (footnotes omitted).

diverse cultural environment can best be met. The state, for instance, can assign a more diversified role for the public service broadcasters<sup>161</sup> or put in place incentives for other cultural institutions, such as museums or theatres, to innovate around the UCC phenomenon. Support programmes for the creation and diffusion of local content may call for revision to take into account the potential of UCC.<sup>162</sup> States may also encourage the creation of specific platforms, such as *metaplace*, which is essentially an open platform allowing anyone to create their own virtual world and enabling users to build a network of worlds.<sup>163</sup> All these undertakings, whatever their form, would need to suit the game environment and this is not necessarily an easy task considering the idiosyncratic nature of digital game spaces, their complex social, cultural, economic and ludological conventions, and the centrality of trust.<sup>164</sup> Furthermore, “[i]f public policy is to help rather than hinder [UCC], it must be designed to take into account the particular nature of the amateur modality”.<sup>165</sup> In this sense, a rush of untargeted efforts, as a mere act of innovation of government bureaucracies,<sup>166</sup> should not be greeted too warmly. There must be room for experimentation and testing to find out which patches of intervention work in a particular society or in a particular region, which presupposes flexibility of the state agencies and/or procedural checks.<sup>167</sup>

Outside the media policy domain, there are also a number of other measures, not cultural by nature, which may foster creativity in digital game environments and beyond them. This observation draws on our analysis of the constraints of UCC within digital game environments and how some of them can be lifted to strengthen the positive effects of UCC. Some of these suggestions are located at the micro-level while others demand sweeping paradigm shifts.

As an instance of the first category, clearly more transparency of EULA and ToS and fairer terms in these now completely one-sided private arrangements could be aspired to.<sup>168</sup> While self-regulation is the best option in this regard,<sup>169</sup> the process of negotiation and monitoring may be facilitated by states (e.g. by including such a condition in funding schemes), or co-regulation models can also be tested. As an example of the second category, most ambitious, but arguably also most efficient, is the reform of the copyright law to reflect better the conditions and motivations of creativity, the modes of creating and sharing that have proliferated in the digital

<sup>161</sup> The British Broadcasting Company (BBC) has already experimented in this field. See Ofcom, *A New Approach to Public Service Content in the Digital Media Age: The Potential Role of Public Service Publisher*, OFCOM DISCUSSION PAPER (2007). See also JAMIE COWLING & DAMIEN TAMBINI (EDS.), FROM PUBLIC SERVICE BROADCASTING TO PUBLIC SERVICE COMMUNICATIONS (2004).

<sup>162</sup> OECD, *supra* note 8, 41–42. See also OFCOM, OFCOM’S SECOND PUBLIC SERVICE BROADCASTING REVIEW PHASE ONE: THE DIGITAL OPPORTUNITY 1.23 (2008); TIM GARDAM & DAVID A. LEVY (EDS.), THE PRICE OF PLURALITY: CHOICE, DIVERSITY AND BROADCASTING INSTITUTIONS IN THE DIGITAL AGE 125–151 (2008).

<sup>163</sup> See <http://www.metaplace.com/information/about>.

<sup>164</sup> Katie Salen, *Toward an Ecology of Gaming*, in Salen, *supra* note 23, 1, 13.

<sup>165</sup> Quiggin & Hunter, *supra* note 66, 239–240.

<sup>166</sup> *Id.*, 240–241. See also Mahesh Sharma, *Old Funds for New Worlds*, THE AUSTRALIAN, May 29, 2008.

<sup>167</sup> From a legal perspective, all of the above suggestions are likely to raise the same doubts as the conventional cultural policy measures in that their impact cannot be measured. Even simpler models, such as the promotion of European works of the AVMS for non-linear services, are faced with problems. See DAVID ROLFE ET AL., STUDY ON THE APPLICATION OF MEASURES CONCERNING THE PROMOTION OF THE DISTRIBUTION AND PRODUCTION OF EUROPEAN WORKS IN AUDIOVISUAL MEDIA SERVICES 305 (2008).

<sup>168</sup> See Jankowich, *supra* note 49. See also Jason T. Kunze, *Regulating Virtual Realms Optimally: The Model End User License Agreement*, 7 NW J. OF TECH. & INTELL. PROP. 101 (2008); Erez Reuveni, *On Virtual Worlds: Copyright and Contract Law at the Dawn of the Virtual Age*, 82 IND. L. J. 261 (2007).

<sup>169</sup> Mayer-Schönberger & Crowley, *supra* note 33, 1825.

networked society.<sup>170</sup> It has long been acknowledged that such a reform will be advantageous to cultural diversity.<sup>171</sup> While it is beyond the scope of this article to look into the dimensions of such a copyright reform,<sup>172</sup> it is interesting to note that UCC, or what Rebecca Tushnet calls “user-generated discontent”,<sup>173</sup> may have a role to play in pushing towards changes since these newly emerged patterns reflect “fundamental values that we as a society should consciously endorse, such as active participation in cultural and political dialogue. Organized and self-reflective thinking by fair users helps make the case that a consistent, socially beneficial set of practices exists that should be recognized by the law”.<sup>174</sup> It will also be essential in this context and considering the extreme fluidity of digital game spaces, to allow sufficient room for “creative play”, as Julie Cohen defines it,<sup>175</sup> so that it “supplies [...] unexpected inputs to creative processes, fuels serendipitous consumption by situated users, and inclines audiences toward the new”.<sup>176</sup>

### V. CONCLUSION: DO NO HARM<sup>177</sup>

It has been the purpose of this article to look at UCC in digital game environments, its potential contribution to cultural diversity and ultimately the possible role of the state. We established through a negative analysis that presently UCC does not play a central role in most virtual worlds. Accordingly, UCC’s contribution to cultural diversity may be viewed as minimal, first because of the high thresholds to entry into the game space and second because of the constraints within it.

Yet, UCC as a phenomenon and as an evolving process can be said to reflect the key media policy components of diversity, localism and non-commercialism.<sup>178</sup> In this sense, it could be a convenient channel for fostering these aims, especially as virtual worlds continue to grow in size and importance. Under the conditions of increasingly fragmented audiences, with well-selected and targeted tools states could perhaps achieve more than was possible with the “old” (and very

<sup>170</sup> For excellent analyses, see Erez Reuveni, *Authorship in the Age of Conducer*, 54 J. COPYRIGHT SOC’Y U.S.A. 285 (2007).

<sup>171</sup> See e.g. WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore, Consolidated Analysis of the Legal Protection of Traditional Cultural Expressions, WIPO/GRTKF/IC/5/3 (2003), Annex, para 8.

<sup>172</sup> For some well-informed opinions, see *supra* note 101.

<sup>173</sup> Rebecca Tushnet, *User-Generated Discontent: Transformation in Practice*, 31 COLUM. J.L. & ARTS 497 (2008).

<sup>174</sup> Tushnet, *id.*, 501.

<sup>175</sup> Cohen, *supra* note 2. Many other authors have also argued that artistic and intellectual innovation flows from creative play. See e.g. EBEN MOGLEN, *Anarchism Triumphant: Free Software and the Death of Copyright*, in THE COMMERCIALIZATION OF INFORMATION 107, 126–129 (Niva Elkin-Koren & Neil Weinstock Netanel eds., 2002); David Lange, *Reimagining the Public Domain*, 66 L. & CONTEMP. PROBS. 463, 482–483 (2003).

<sup>176</sup> Cohen, *id.*, 1192.

<sup>177</sup> This is a warning message that Julie Cohen formulates with regard to copyright: “...copyright is a system of legal regulation overlaid on processes of human learning and creativity that have existed for millennia. Those processes are still quite poorly understood, and much work remains to be done in understanding the pathways by which exposure, consumption and copying lead into creative play, and by which private creative play becomes more public contribution to the creative fabric of a common culture. Under the circumstances, our guiding principle should be the one often attributed to Hippocrates: First, do no harm”. See Julie E. Cohen, *The Place of the User in Copyright Law*, 74 FORDHAM L. REV. 347, 374 (2005).

<sup>178</sup> See Ellen P. Goodman, *Media Policy Out of the Box: Content Abundance, Attention Scarcity, and the Failures of Digital Markets*, 19 BERKELEY TECH. L.J. 1389, 1395–1399 (2004).

costly) analogue toolbox. The first rule for any intervention should however be that of “do no harm” since, as we have seen, game environments are complex and sensitive, with intertwined processes of consumption, communication, self-development and creation that we have not yet come to grips with.<sup>179</sup>

As a final point and thinking about the sustainability of creativity, one needs to acknowledge that, “[b]eyond their value as entertainment media, games and game modifications are currently key entry points for many young people into productive literacies, social communities, and digitally rich identities”.<sup>180</sup>

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<sup>179</sup> See Balkin, *supra* note 13, 80. See also Cohen, *supra* note 2, 1194, who states that “the psychology of creativity suggests that attempts to impose a rigid structure on the creative process quickly become counterproductive, and that the success of the creative process hinges in part on the ability to avoid externally imposed distractions”.

<sup>180</sup> Salen, *supra* note 164, 14–15. See also JAMES GEE, WHAT VIDEO GAMES HAVE TO TELL US ABOUT LEARNING AND LITERACY (2001) and more recently, JOHN PALFREY & URS GASSER, BORN DIGITAL: UNDERSTANDING THE FIRST GENERATION OF DIGITAL NATIVES (2008).